

Applicant(s)	Michael J. Geile et al.	PRELIMINARY AMENDMENT
Serial No.	Unknown	
Filing Date	Herewith	
Group Art Unit	Unknown	
Examiner Name	Unknown	
Attorney Docket No.	100.070US26	
Title: DYNAMIC BANDWIDTH ALLOCATION		

Commissioner for Patents
Washington, D.C. 20231

Prior to initial review, please amend the above-identified application as follows:

IN THE SPECIFICATION

In the first line after the title, please insert the following:

--This application is a divisional application of U. S. Patent Application
09/397,443, filed September 15, 1999, and entitled "Dynamic Bandwidth Allocation".--

IN THE CLAIMS

Please cancel claim 1, add claims 2 – 12.

2. (New) A head end comprising:

at least one modem for communicating with service units over a transmission bandwidth, the transmission bandwidth being divided into a number of subbands, each subband including a plurality of payload channels and at least one control channel; and
a control circuit, communicatively coupled with the at least one modem, that assigns each service unit to a subband such that the service units are substantially evenly distributed over the subbands.

3. (New) A head end comprising:
- at least one modem for communicating with service units over a transmission bandwidth, the transmission bandwidth being divided into a number of subbands, each subband including a plurality of payload channels and at least one control channel; and
- a control circuit, communicatively coupled with the at least one modem, that assigns each service unit to a subband such that the load of the service units is substantially evenly distributed over the subbands.
4. (New) The head end of claim 3, wherein the control circuit selectively assigns each service unit based on at least an expected load on a control channel in a subband.
5. (New) The head end of claim 3, wherein the control circuit selectively assigns each service unit based on at least an expected load for the service units.
6. (New) The head end of claim 3, wherein the control circuit is further operable to allocate a payload channel to a service unit in response to a request for bandwidth for the service unit.
7. (New) The head end of claim 3, wherein the control circuit is operable to assign a number of service units to each subband for selective use of the payload channels in the subband by the service units so as to increase the number of service units that can be coupled to a communication system.
8. (New) A head end comprising:
- at least one modem for communicating with service units over a transmission bandwidth, the transmission bandwidth being divided into a number of subbands, each subband including a plurality of payload channels and at least one control channel;
- a control circuit, communicatively coupled with the at least one modem, that assigns each service unit to a subband such that the service units are substantially evenly distributed over the subbands; and

wherein each subband includes a number of payload channels that transmit data at a first rate and a control channel that transmits data at a second rate, the second rate being slower than the first rate.


9. (New) The head end of claim 8, wherein the control circuit selectively assigns each service unit based on at least an expected load on a control channel in a subband.
10. (New) The head end of claim 8, wherein the control circuit selectively assigns each service unit based on at least an expected load for the service units.
11. (New) The head end of claim 8, wherein the control circuit is further operable to allocate a payload channel to a service unit in response to a request for bandwidth for the service unit.
12. (New) The head end of claim 8, wherein the control circuit is operable to assign a number of service units to each subband for selective use of the payload channels in the subband by the service units so as to increase the number of service units that can be coupled to a communication system.

REMARKS

Claim 1 is cancelled, and claims 2-12 are added as a result claims 2-12 are pending in this application. Please note that claims 2- 5 are claims 39-42 as found in parent Application Serial No. 09/397,443. If the Examiner has any questions regarding this application, please contact David N. Fogg at (612) 312-2201.

Respectfully submitted,

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